



October Brings Big Annual Events....

★ Marshall Center Picnic Is Set for Fun-Filled Day Saturday

by Carole McLemore, Picnic Publicity

This Saturday, Oct. 4th, marks the annual Marshall Center Picnic that we have all been anticipating for some time. The weather will be wonderful and it will be a fun day to visit with co-workers and friends, meet the astronauts, eat lots of good food, lounge while being entertained by some of the hottest



acts in the country, watch big-screen TV football, see hot cars and aircraft, and participate in games and contests with chances to win some fantastic prizes!

Remember, you must be present to win the door prizes. Some of the door prizes include: gas grill, CD boom box, 25" color TV, thermoelectric cooler, Bissell Big Green Machine, cordless phone, \$50 gift certificates (5) from the malls, bistro set (table and 2 chairs), and a camera. Don't forget to drop a few tickets in the box at the Sports Pavilion for drawings of special door prizes which will be on display. That's where you can also watch the football games. Some of the memorabilia to be given away include: footballs autographed by Terry Bowden, Mike Dubose, and John Stallworth, a poster autographed by Ron Howard, CDs by Brooks & Dunn, and many other exciting surprises!

If you want to eat some delicious BBQ, then you need to purchase your meal tickets for \$5 no later than COB Oct. 1st from your Administrative Officer. So, come on out at 8 a.m. and watch some volleyball and then walk in the Children's Parade with the cartoon characters at 9:45. Don't forget to bring your cameras, lawn chairs and/or blankets.

continued on page 5

★ Exploration Forum Kicks Off Oct. 10 with Center Program

The tenth annual Von Braun Exploration Forum will kick off an Oct. 10 lineup of events with a free program for Marshall Center employees and contractors at 1:30 p.m. in the Morris Auditorium of Building 4200. Television host and producer Jim Hartz and singer/songwriter Beth Nielson Chapman will be among special guests.

Hartz, former host of the NBC-TV "Today Show," is currently a visiting professional scholar at the First Amendment Center at Vanderbilt University in Nashville, Tenn. He has also served as anchor and chief correspondent of *Innovation*, the award-winning Public Broadcasting Service (PBS) science and high technology series produced by WNET, the PBS flagship station in New York.

Chapman's recording career began in 1980 with the debut album *Hearing it First*, produced by Muscle Shoals legend

Barry Beckett. From there she expanded as a professional songwriter, relocating to Nashville and writing for such diverse artists as Waylon Jennings and German



Beth Nielson Chapman



Jim Hartz

chanteuse, Ute Lemper. She also hit #1 with songs performed by Willie Nelson (*Nothin' I Can Do About It Now*), Tanya Tucker (*Strong Enough to Bend*), Alabama (*Here We Are*) and Lorrie Morgan (*Five Minutes*). She wrote Top 10 hit songs for Trisha Yearwood (*You Say You Will* and *Down on My Knees*) among others.

Centering on the theme "Chroniclers of Exploration," Hartz and Marshall Center Associate Director Dr. Rick Chappell will talk about how America reports space science and technology and identify ways in which reporting can be done better.

Hartz and Chappell are working on a study of how the media report space, science and technology in America. Chappell is also currently on loan to Vanderbilt as a visiting professional scholar.

"The solution," says Chappell, "involves both changes on the part of the scientist and engineer as well as an increased education of journalists in science and technology."

The event will also include a question and answer session, followed by a reception in which employees may meet Forum participants.

continued on page 5

NASA Issues Final X-33 Environmental Impact Statement

NASA released the Final Environmental Impact Statement on the development and flight testing of the X-33 Advanced Technology Demonstrator. The study considers issues such as public safety, noise, impacts on general aviation and effects on biological and natural resources. In the document NASA named three preferred landing sites and one preferred launch site for the X-33. Seven sites were evaluated for potential use during the 14-month study.

The preferred launch site is located near Haystack Butte on the eastern portion of Edwards Air Force Base, Calif. The preferred landing sites identified are Silurian Lake, a dry lake bed near Baker, Calif.; Michael Army Air Field, Dugway Proving Ground, Utah; and Malmstrom Air Force Base near Great Falls, Mont.

After 30 days NASA will issue a Record of Decision announcing if it intends to proceed with the X-33 flight test program as described in the environmental impact statement. That final decision will be based on technical, cost and schedule considerations in addition to environmental factors.

"The study determined that the overall predicted environmental impacts of X-33 were minimal at all sites considered," said Dr. Rebecca McCaleb, who headed the study. McCaleb is director of environmental engineering and management at the Marshall Center. The study was prepared by a team of dozens of experts from the Marshall and Kennedy space centers who studied the issues surrounding the X-33 program. The Department of Defense, the Office of Commercial Space Transportation within the Federal Aviation Administration and the Bureau of Land Management all cooperated in preparation of the document.

NASA conducted 23 public meetings in 13 communities in five states near the proposed sites and met many more times with federal and state agencies, local authorities, elected officials, chambers of commerce and many interested citizen groups. Comments received from the public were considered during preparation of the final environmental impact statement.

"Public participation was a vital part of the environmental process," said McCaleb.

"It strengthened NASA's understanding of the potential impacts of the flight test program and how to effectively mitigate them."

The 273,000-pound, wedge-shaped X-33 is being developed under a cooperative agreement between NASA and Lockheed Martin Skunk Works, Palmdale, Calif., which began July 2, 1996.

NASA has budgeted \$941 million for the X-33 program through 1999. Lockheed Martin will invest at least \$212 million in its X-33 design.

The X-33 is a sub-scale technology demonstrator prototype of a Reusable Launch Vehicle, which Lockheed Martin has named "Venture Star," and which the company hopes to develop early in the next century. Through demonstration flights and ground research, the X-33 will provide information needed for industry to decide by the year 2000 whether to proceed to the development of a full-scale, commercial single-stage-to-orbit reusable launch vehicle. Such a vehicle could lower the cost of putting a pound of payload into space from \$10,000 to \$1,000.



Habitat for Humanity International founder Millard Fuller and his wife Linda accept a commemorative plaque from Marshall's Combined Federal Campaign Chairperson Steve Gaddis (left) during the campaign's kickoff ceremonies Monday. Fuller and his wife travel and speak worldwide. Fuller has received international recognition for his work in advocating decent, affordable housing for all. The Center's Combined Federal Campaign will run through Nov. 7.

Photo by Terry Liebold

ASRI to Provide Fabrication and Assembly Services at Marshall

AI Signal Research, Inc. (ASRI) a small, minority-owned enterprise in Huntsville, has been awarded a contract by the Marshall Center to provide hardware fabrication and assembly services and design and test services at the center beginning today.

The contract will start with a one-year basic period followed by four one-year options which may be exercised at NASA's discretion. If all options are exercised, the contract would be worth as much as \$75.3 million.

The work to be performed under the contract includes operation of a high-precision machine shop. Among the services to be provided are machining, sheet metal work, assembly, welding, electrical and electronics work, surface treatment, heat treating, dry-film lubrication, and multilayer insulation blanket fabrication.

Proposals for this work were solicited nationally. The procurement was handled under the Small Business Administration program limiting competition to qualified small and disadvantaged businesses. A total of 10 proposals were received. These services were previously provided by Native American Services of Huntsville.

Joint STS-86, Mir Spacewalk to Retrieve Marshall Experiments

by Bob Thompson

A spacewalking U.S. and Russian team is retrieving four experiments that have been measuring the long-term, harsh effects of space on the Russian space station Mir.

One of the devices, known as the Passive Optical Sample Assembly-1, was developed at Marshall Center. It, and the other three experiments, will be returned to Earth on Space Shuttle Atlantis for study and analysis of findings.

The retrieval operation is planned during a four-and-a-half-hour extravehicular activity, or spacewalk today, scheduled to begin at 1:44 p.m. CDT. Russian cosmonaut Vladimir Titov, making his fourth spacewalk, will be the first Russian cosmonaut to ever use a U.S. space suit. Titov and U.S. astronaut Scott Parazynski will team up to retrieve the space environments and effects experiments, which are expected to yield vital information on the harsh conditions of space travel, orbital debris and the endurance of various spacecraft materials.

The Marshall-managed and developed Passive Optical Sample Assembly-1 consists of nearly 400 samples of thermal control paints, chemical coatings, mirrors, optics and other materials being considered for future enhancements on the International Space Station. This next-generation space station is a multi-national cooperative effort to establish a large laboratory platform in orbit around the Earth.

"We're looking forward to seeing the experiment returned to Marshall Center for analysis," explained project engineer Jim Zwiener of Marshall. "We anticipate learning a great deal about the effects of the space environment on materials important to the long-term health of other spacecraft, including the International Space Station."

The four experiments, attached to the Mir during a spacewalk from Atlantis in March 1996, are part of studies to understand the

contamination spacecraft face in their orbiting environment. This includes observations of the effects of natural radiation and meteor and orbital debris.

"A major objective of the Shuttle/Mir missions, and investigations such as the space environments and effects experiments, is to lower design and operational risks for the Space Station," said Steve Pearson, Marshall's program manager for the space environments and effects program.

Other Marshall-managed and developed space environment experiments aboard Mir include the Optical Properties Monitor, which was attached to the exterior of the Mir Docking Module during a January spacewalk by U.S. astronaut Jerry Linenger. This device measures the effects of the space environment on materials ranging from telescope mirrors to coatings used on spacecraft.

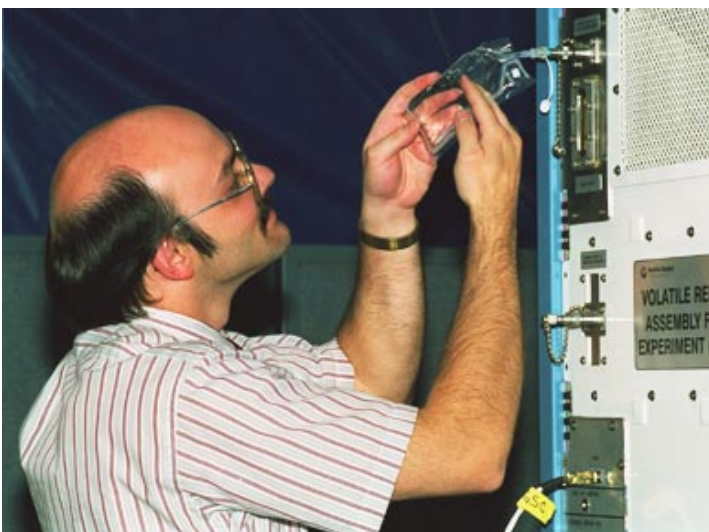
continued on page 4

Local Company Selected to Operate Facilities at Wallops

NASA has selected H&H Consolidated, Inc. of Arab for award of a \$25.6-million facilities operations and maintenance contract at NASA's Wallops Flight Facility, Wallops Island, Va. This performance-based, cost plus award fee contract is for a period of one year effective Oct. 1, 1997 with four one-year options.

Services provided under this contract will include plumbing, electrical and mechanical support for all facilities and equipment located at Wallops. The contractor also will provide stand-by and remote off-site project support for rocket launches worldwide and minor construction and renovation of various buildings at Wallops.

Space Station Water Recycling Experiment to Fly on STS-89



Keith Parrish of the Environmental Control and Life Support System Test Team (EL63) demonstrates taking a water sample from the Volatile Removal Assembly Flight Experiment. Photo by Emmett Given

The Marshall Center's Volatile Removal Assembly (VRA) Risk Mitigation Experiment (RME) was delivered to the SpaceHab Payload Processing Facility at Kennedy Space Center last week in preparation for flight aboard STS-89, scheduled for Jan. 15, 1998. Marshall personnel are on hand at KSC to support integration of the hardware into the SpaceHab flight rack.

"This experiment is a critical test of whether the International Space Station potable water system will operate on orbit as designed, and it will tell us whether there are microgravity sensitivities that must be fixed before it is deployed on the space station," said Project Manager Kathy Jones of Flight Projects Office.

A five per cent solution of ethanol in water will be used in the VRA RME to simulate the waste material that would be processed by the ISS system. The VRA RME, designed and fabricated by Hamilton Standard Space Systems, was delivered to Marshall on June 4, 1997, for completion and pre-flight acceptance testing.

'Technology 2007' Conference Highlights NASA innovations

NASA's vision for the Next Generation Internet was one among many innovations in the spotlight last week at Technology 2007, the eighth annual National Technology Transfer Conference. Held in Boston, Mass., this year, the event also featured a significant presence by the Marshall Center.

Topics which were showcased by the Marshall delegation included:

- Center activities in support of the NASA Operational Environment Team initiative;
- Progress with a promising new technology for metal fastening — Friction Stir Welding;
- Development of advanced diffractive optics fabrication techniques for microminiature optics; and,
- Marshall's overall Technology Transfer efforts — aimed at developing, transferring, and commercializing new technologies.

The Technology 2007 conference gives U.S. companies access to the hottest inventions developed by NASA and the other federal labs as a resource for use in developing tomorrow's products — a whole range of innovations with down-to-Earth uses. NASA offers access to its 11,000 scientists and engineers to partner with companies in their R&D efforts.

"The turnout was larger than expected, and it resulted in a tremendous number of contacts," said Al Jordan of the Marshall Technology Transfer Office. This year's convention was in an 80,000-square-foot space, filled with the latest technology innovations emanating from NASA, federal laboratories, their contractors, state organizations, universities and private companies.

Among major presentations at the event, NASA's Christine Falsetti will give a plenary session speech and demonstration on the subject of a new Internet for 21st century researchers — one that promises to be a thousand times faster and more reliable than today's.

Spacewalk

from page 3

The current Shuttle mission is transporting the Space Portable Spectroreflectometer to Mir. The device is designed to shine light on the surface of Mir and measure how much of the light is absorbed or reflected by the spacecraft surface. This will tell researchers how much deterioration of the exterior surface has occurred. The instrument is scheduled to be used during a spacewalk planned for later this year.

AZ Technology of Huntsville, Ala., built both the Optical Properties Monitor and the Space Portable Spectroreflectometer experiments.

Birmingham's Larry DeLucas Awarded NASA Public Service Medal

by Bob Thompson

NASA awarded Dr. Lawrence J. DeLucas of Birmingham, the NASA Public Service Medal to recognize his support of the space agency's Microgravity Research Program.

The NASA Public Service Medal is awarded to U.S. citizens who are not NASA employees and who have made exceptional contributions to the administration and technical management of NASA programs.

DeLucas is director of the Center for Macromolecular Crystallography, a commercial space center, at the University of Alabama at Birmingham. He will be presented the award for his contributions to advanced disease-fighting, biotechnology research and his leadership in protein crystal growth research. Scientists grow protein crystals in space and ground-based experiments to study their molecular structure, as part of the effort to design new life-saving drugs.

DeLucas' experience with protein crystal growth research includes Earth-based and space-based experiments. DeLucas was a payload specialist crew member on the Space Shuttle Columbia's 1992 mission — the first flight of the U.S. Microgravity Laboratory. He conducted protein crystal growth experiments in the near-weightless environment of space, known as microgravity.

DeLucas developed three successful microgravity flight experiment programs involving protein crystal growth aboard subsequent Shuttle missions. These involved the Vapor Diffusion Apparatus, the Crystal Observation System and the second-generation Vapor Diffusion Apparatus experiment systems. DeLucas' space-based experiments resulted in many examples of larger and more pure protein crystal samples than possible in ground-based research.



A group of Russian senior space station officials toured Marshall Center facilities Monday to see and hear about the current status of International Space Station work. The tour was part of a series of visits by the delegation to NASA and space station contractor sites. Here they are viewing hardware in Building 4619.
Photo by Dennis Olive

Marshall Picnic Oct. 4

from page 1

Entertainment and Special Guests

Along with several other activities and events scheduled for the day, there will be some exciting entertainment, both musical and non-musical. One new non-musical act will be Management Mania starting at 10:30. Imagine the good time that will be had by all when Center Management participates in the "Dizzy Lizzy, Whip Cream Find, and Balloon Pop" activities, just to mention a few.

In the area of musical entertainment, Cheyenne with special guest, Deena Kelley, will play "New Country" and "Traditional Rock and Roll" on the Main Stage beginning at 11 a.m. This seven-member group prides itself on strong harmony and interactively entertaining the audience. At 1 p.m., also on the Main Stage, Jimmy Thackery and The Drivers will work their music magic with Jimmy playing his unique blues guitar. Jimmy is celebrating his 25th year of touring, so get ready to enjoy some "Rockin' Boogie N' Blues" with numbers from his latest CD release "Drive to Survive".

Marshall employees and contractors will also have the opportunity to meet two astronauts and get their autographs and perhaps a picture made with them. The two include: David M. Brown, (M.D.) NASA Astronaut Candidate (Mission Specialist), and Payload Specialist Roger K. Crouch (Ph.D.). David was selected by NASA in April of 1996 and is currently in astronaut training which will qualify him as a mission specialist on a Space Shuttle flight. Roger flew in April and July this year on the two Marshall-managed Microgravity Science Laboratory Shuttle missions as a payload specialist.

Just a Few More Volunteers

We need a few more volunteers to donate one hour of their time this Saturday to make the picnic complete. Please contact one of the following if you can help out. We really appreciate it and you get a chance to win a \$50 gift certificate just for volunteers!

<u>Event</u>	<u>Contact</u>	<u>Number</u>
Bingo	Rusty Cowan	4-7134
	Nikki Miller	4-8955
	Tammy Rowan	4-8706
Tickets	Annie Johnson	4-2068
	Paula Carden	4-4429
Games & Contests	Leslie Houston	4-8832

For further information, check out our picnic home page at: <http://psinfo.pscni.nasa.gov:80/msfcpicnic/home.html>.



Members of the 1997 Marshall Division 1 softball champion team, the Renegades, are (front row from left) John Hutt, Dan Mullane, Johnney Mason, Len Bell and Blake Anderson. Back row from left, Rob Ray, Joel Anderson, Steve Knight, Mike Rorex, Chris McGougan and Randy Reed.

Von Braun Exploration Forum

from page 1

The Forum itself will be held at the Von Braun Center Concert Hall where this year's program will examine the important role that storytellers play in developing the public's understanding of the exploration experience through the news media, movies, music and poetry. One example to be discussed is the new five-part HBO series spearheaded by actor and movie producer Tom Hanks about the Apollo program, called *From the Earth to the Moon*.

Besides Hartz and Chapman, other Forum guests include former Space and Rocket Center Director Ed Buckbee.

This year's forum marks the 10th anniversary for the Forum, an event designed to communicate the elements of exploration to the public, according to Chappell.

"The media," said Chappell, "play a very critical role in communicating the results of exploration to the public. It has become evident in this time of tight budgets that it is very important for the public to understand the role of exploration in America's future."

"The chroniclers of exploration," added Chappell, "are the people who give the public this knowledge."

Forum events on Oct. 10 will begin at 6 p.m. with a reception hosted by the National Space Club and Comcast Cablevision of Huntsville.

The Forum itself starts at 7 p.m. and is followed by a black-tie dinner and music by the Jimmy Church Band.

The Forum is sponsored by the Marshall Center, Discovery Communications, the University of Alabama in Huntsville, the National Space Society, the Association of Space Explorers, and the U.S. Space and Rocket Center. It will be open to the public at no charge and tickets are not required this year. However, tickets for the reception and the Von Braun Memorial Dinner and Dance, sponsored by the National Space Club, may be purchased until today by calling 890-6811. For more information about the Forum itself, please call 890-6940.

Obituary

Horace Wheeler, 69, Boaz, died Sept. 18. He retired from Marshall in 1988 where he worked in the Propulsion Lab. He is survived by his spouse J. D. Wheeler.

Employee Ads

Miscellaneous

- ★ 30"x60" 6 drawer metal desk. 30"x60" 2 drawer desk with 20"x30" L extension \$25. 461-8237
- ★ 1.46 CT round solitaire diamond ring. Appraised \$6,954, asking \$5,000 o.b.o. 536-6345
- ★ Set of twin beds with mattresses, boxsprings, frame, head boards. 650-5375
- ★ Four pool tables: three 8 foot tables, and one snooker table. 353-9200 or 350-3805
- ★ Huffy Le Grande racing bike, 12 speed, 26 inch frame \$25. 536-8580
- ★ Four Toyo radial tires, P195/R14, 20K miles \$20. 536-8580
- ★ Set of tickets, NASCAR all pro series, Nashville, October 19, face value \$33 apiece. 461-7434
- ★ Vintage fur coat, size 10. 615-468-2440
- ★ Word processor (Brother WP-5900 MDS) \$175 negotiable; boat (15'), 18 HP Johnson, trailer, trolling motor \$1,000. 881-0278
- ★ Nordic Track Walkfit \$350. 776-9367
- ★ Fireplace screen, antique brass finish \$15; bed rails full/queen, never used \$15. 882-6832
- ★ Weslo Cardiofit and AbWorks by Nordic Track for Nordic Track Skier. 859-9767
- ★ Lazyboy recliner, B. Leather \$150; 8-black walnut logs L.45 ft., dia. 8" \$135; 4-Michelin tires, P205/70 R15 \$55. 881-3708
- ★ AbWorks by Nordic Track with floormat \$100. 464-6423
- ★ 0.89 carat diamond solitaire ring \$1,800; 0.42 carat diamond solitaire necklace \$800. 828-2466
- ★ 6 AL-4V Titanium driver, 310cc, Fenwick graphite ultralite, 45" shaft \$150. 536-8925
- ★ 1995 Holiday Barbie \$70; 54 Caliber Hawkin muzzle loader kit \$125. 883-2919
- ★ 46" RCA TV w/pip \$1,000; Longaberger baskets, snow village houses. 851-1976
- ★ NoJo blue/white floral print crib, bedding, canopy, pillows, diaper stacker \$200. 350-1292
- ★ Fender guitar amp, 100 watts, reverb, 3 channel with footswitch, black/silver cloth. 351-6855
- ★ 120 mhz Pentium, 1.2GB drive, 32MB RAM, 8x CD-ROM, 33.6 modem, monitor, keyboard, Windows 95 \$900. 881-5389
- ★ Golden Retriever puppies, AKC registered, all shots vet certified \$150. 837-2461
- ★ Fallen tree, oak, for firewood use, \$45 per truck load. 859-0501

Vehicles

- ★ 1991 Ford Explorer, Eddie Bauer, 4-door, leather, 54K miles \$9,400. 539-0094

- ★ 1992 Taurus GS, automatic in console, PS, ABS, dual air bags \$5,200. 880-9025
- ★ 1985 Mazda 626, 5-speed, 98K miles, K'wood, radio/cass., a/c. 837-2783
- ★ 1991 Nissan Sentra, 100K miles, air, PS, PB, tape, cruise, 35mpg \$4,200. 882-1833
- ★ 1997 Tahoe, 2-door, white, 4x4, 8K miles \$27,500. 350-9838 leave message.

Found

- ☛ Money found in Bldg. 4200, call 4-4758 to identify.

Carpool

- ☛ Decatur to MSFC, Bldg. 4711 area, 7 a.m. to 3:30 p.m. or 2:30 p.m. to 4 p.m. 351-6855

Center Announcements

- ☛ **Free** — A chance at winning a \$50 gift certificate for volunteering 1 hour of your time at the 1997 MSFC picnic. Contact Carole at 544-2314 for more information.
- ☛ **Flu Shots** — The annual administration of flu shots will be provided at the MSFC Medical Center as follows: Oct. 7 and 15 (civil service only), and Oct. 23 and 28 (all on-site personnel). Times each day are 12 noon until 2 p.m.
- ☛ **Senior/NASA Day** — In recognition of the Alabama A&M Senior/NASA Day, tickets are now available for the Alabama A&M - Tuskegee University football game to be played Nov. 8 at 1:30 p.m. at the A&M stadium. General admission tickets are \$10 each, student tickets are \$5 each (ages 6-12 yrs.), and children under 6 are free. Tickets may be purchased in the NASA Exchange office, bldg. 4752, Monday through Friday, from 8 a.m.- 4:30 p.m. For additional information contact Alice Sams at 4-0374 or Willie Love at 4-0088.
- ☛ **Procurement** — The Procurement Office Retirees will meet for breakfast Oct. 7 at 9 a.m. in Shoney's at Haysland Square. For additional information call Carl Meltox at 837-5604.
- ☛ **Mars Ballroom Dance Club** — The Mars Ballroom Dance Club formal fall dinner dance will be held in the VBC West Hall on Oct. 11 and will feature music by the Paul Chambers combo. Socializing will begin at 6:30 p.m., and a buffet dinner will be served at 7 p.m., followed by dancing from 8 to 11 p.m. Tickets are \$18 per person with a \$3 discount for members; they can be purchased from Tamara Landers (544-6818), Pat Sage (544-5427), Ed Ogozalek (837-1486), Linda Kinney (544-0563), and Bob William (544-3998).

Reservation for a table of 8 can be made by calling Woody Bombara (650-0200).

- ☛ **Retired Senior Volunteer Program** — The Huntsville/Madison County Senior Center will participate in "Make a Difference Day" on Oct. 27 from 7 a.m. to 6 p.m. at the Senior Center. Contact Darthy Barnett for more information.
- ☛ **Stop Abuse** — Aware of waste, fraud or abuse? Telephonically contact the MSFC Office of Inspector General at 544-9188 or send complaints to Mail Stop M-DI. Confidentiality will be maintained.
- ☛ **Toastmasters International** — Toastmasters will meet Oct 7 at 11:30 a.m. in bldg. 4610 cafeteria conference room. All MSFC employees, contractors, and friends are invited to attend. For information call Debbie Hagar at 5-4992 or Lee Johns at 4-5142.
- ☛ **Procurement Standdown** — The Procurement Office is hosting a Standdown in Bldg. 4200/P110 on Oct. 7 and 9 at 8 a.m. to 12 noon each day. The topics to be discussed are centered around the Procurement Office's implementation of ISO 9000 and include the Purchasing Standard Procedure, the new Centerwide Work Instructions (CWI's) and Organizational Work Instructions (OWI's). The CWI's will be discussed on Oct.7 and the OWI's on Oct. 9. All are invited to attend.
- ☛ **MARS Fishing Club** — The results of the Sept. 20 tournament are as follows: First place went to Charles Cothran and Ross Evans with 4 fish totalling 8.65 lbs. Second place went to John Harbison and Mike Vanhooser with 2 fish totalling 3.42 lbs. Third place went to Ken Anthony and John Pea with 1 fish of 1.95 lbs. The big fish of the day was caught by Ross Evans and weighed 5.35 lbs. For more information about the club call Don McQueen, 4-9073, or Ross Evans, 4-2305.
- ☛ **NASA Ski Week** — The 7th Annual NASA Ski Week will be hosted at Whistler-Blackcomb, January 24-31. All MSFC employees, on-site contractors, retirees, and dependents are eligible to participate. For information contact Tom Dollman at 4-6568 or by e-mail "tom.dollman@msfc.nasa.gov".

Job Opportunities

Recruiting Bulletin: MSFC 97-16, Secretary (Office Automation), GS-318-5, Duty Station: Washington, D.C., Space Transportation Programs Office, Transportation Projects Office. This is a temporary appointment not to exceed 1 year. Closes October 3.

MARSHALL STAR

Marshall Space Flight Center, Alabama 35812

The Marshall Star is Published every Wednesday by the Public Affairs Office at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Contributions should be submitted no later than Friday noon to the Marshall Public Affairs Office (CA10), Building 4200. Submissions should be written legibly and include the originator's name. The Marshall Star does not publish commercial advertising of any kind.

Writer-Editor — Angela D. Storey
Editorial Assistant — Betty Humphery
Director, Media Services — David B. Drachlis
Director of Public Affairs — John B. Taylor
U.S. Government Printing Office 1998-633-111- 60031

BULK RATE
Postage & Fees PAID
NASA
Permit No. G-27